9944

KOCH

KOCH SUPPLY & TRADING LP

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Koch Supply & Trading, LP
P.O. Box 2302
Wichita, KS 67201-2302
316-828-3895 (U.S.)
kstmsds@kochind.com

24 Hour Emergency Assistance:
CHEMTREC: 1-800-424-9300 (U.S.)

MSDS NUMBER: 9207

TRADE NAMES:
Cutterstock

SYNONYMS:
Light Cycle Oil; Light Cat Cracked Distillate; Intermediate Cycle Oil; Intermediate Cat Cracked Distillate; Heavy Cycle Oil; Heavy Cat Cracked Distillate; Diesel Blendstock; Resid Blendstock; Off Test Diesel Oil; Off Test Kerosene; Industrial Diesel; Marine Diesel Oil: Marine Diesel Fuel

CHEMICAL FAMILY: hydrocarbons

REVISION DATE: Jan 30 2008

2. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=4 FIRE=2 REACTIVITY=0

EMERGENCY OVERVIEW:
SIGNAL WORD: WARNING!
MAJOR HEALTH HAZARDS: potentially fatal if inhaled, respiratory tract irritation, skin irritation, eye irritation, aspiration hazard, blood damage, central nervous system depression, cancer
PHYSICAL HAZARDS: Flash back hazard. Combustible liquid and vapor.

POTENTIAL HEALTH EFFECTS:
INHALATION:
SHORT TERM EXPOSURE: irritation, nausea, vomiting, difficulty breathing, headache, drowsiness, fatigue, dizziness, mood swings, tremors, loss of coordination, blurred vision, kidney damage, liver damage, unconsciousness, brain damage, convulsions, nerve damage, coma, death
LONG TERM EXPOSURE: irritation, kidney damage, liver damage, nerve damage, brain damage, reproductive effects
SKIN CONTACT:
SHORT TERM EXPOSURE: irritation, skin disorders
LONG TERM EXPOSURE: irritation, itching, absorption may occur, headache, drowsiness, dizziness, loss of

coordination, irregular heartbeat, blood disorders, kidney damage, liver damage, cancer
EYE CONTACT:
SHORT TERM EXPOSURE: irritation, tearing, eye damage, blindness
LONG TERM EXPOSURE: irritation, sensitivity to light, tearing, visual disturbances, eye damage
INGESTION:
SHORT TERM EXPOSURE: gastrointestinal irritation, nausea, vomiting, diarrhea, stomach pain, difficulty breathing, headache, drowsiness, fatigue, dizziness, mood swings, tremors, loss of coordination, blurred vision, convulsions, unconsciousness, coma, kidney damage, liver damage, aspiration hazard, death
LONG TERM EXPOSURE: kidney damage, liver damage

3. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: KEROSENE
CAS NUMBER: 8008-20-6
PERCENTAGE: 0-100

COMPONENT: DIESEL FUEL NO. 1
CAS NUMBER: 68334-30-5
PERCENTAGE: 0-100

COMPONENT: LIGHT CATALYTIC CRACKED DISTILLATE
CAS NUMBER: 64741-59-9
PERCENTAGE: 0-100

COMPONENT: INTERMEDIATE CATALYTIC CRACKED DISTILLATE
CAS NUMBER: 64741-60-2
PERCENTAGE: 0-100

COMPONENT: HEAVY CATALYTIC CRACKED DISTILLATE
CAS NUMBER: 64741-61-3
PERCENTAGE: 0-100

COMPONENT: FUEL OIL NO. 4
CAS NUMBER: 68476-31-3
PERCENTAGE: 0-100

COMPONENT: DIESEL FUEL NO. 2
CAS NUMBER: 68476-34-6
PERCENTAGE: 0-100

COMPONENT: SULFUR
CAS NUMBER: 7704-34-9
PERCENTAGE: 0-2

COMPONENT: HYDROGEN SULFIDE
CAS NUMBER: 7783-06-4
PERCENTAGE: 0-1

COMPONENT: BIPHENYL
CAS NUMBER: 92-52-4
PERCENTAGE: 0-0.6

COMPONENT: 1,2,4-TRIMETHYLBENZENE
CAS NUMBER: 95-63-6
PERCENTAGE: 0-0.6

COMPONENT: NAPHTHALENE
CAS NUMBER: 91-20-3
PERCENTAGE: 0-0.5

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Do not attempt rescue in confined spaces without adequate protective gear and proper training. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

SKIN CONTACT: Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get immediate medical attention. Place contaminated clothing in a closed container until laundered or discarded. Contaminated clothing should be removed and laundered before reuse. Notify person laundering clothing of contaminant's hazardous properties. Discard contaminated leather goods.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Hold eyelids away from the eyeball to ensure thorough rinsing. Get medical attention if irritation develops or persists.

INGESTION: Aspiration hazard. Ingestion of this product or subsequent vomiting may result in pneumonitis. If swallowed, drink plenty of water, do NOT induce vomiting. Do not give anything by mouth to unconscious or convulsive person. If vomiting occurs, keep head lower than hips to help prevent aspiration. Keep warm and at rest. Get immediate medical attention.

NOTE TO PHYSICIAN: For ingestion, consider gastric lavage. Ingestion of this product or subsequent vomiting may result in pneumonitis. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficulty breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Moderate fire hazard. Vapor/air mixtures are explosive above flash point. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back.

EXTINGUISHING MEDIA: alcohol resistant foam, carbon dioxide, regular dry chemical, water

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Dike for later disposal. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SENSITIVITY TO MECHANICAL IMPACT: Yes

SENSITIVITY TO STATIC DISCHARGE: Yes

FLASH POINT: >100 F (>38 C)
FLAMMABILITY CLASS (OSHA): II

HAZARDOUS COMBUSTION PRODUCTS:
Thermal decomposition or combustion products: oxides of carbon, oxides of nitrogen, oxides of sulfur, hydrocarbons, hydrogen sulfide

6. ACCIDENTAL RELEASE MEASURES

WATER RELEASE:
Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.

OCCUPATIONAL RELEASE:
Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Store in a tightly closed container. Store in a cool, dry place. Store in a well-ventilated area. Avoid heat, flames, sparks and other sources of ignition. Empty containers may contain product residue. Do not reuse containers without adequate precautions. Subject to storage regulations: U.S. OSHA 29 CFR 1910.106. Grounding and bonding required. Keep separated from incompatible substances.

HANDLING: Ground any equipment used in handling. Use non-sparking tools and equipment. Do not cut, puncture, or weld on or near this container. When using, do not eat, drink or smoke. Subject to handling regulations: U.S. OSHA 29 CFR 1910.119.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
Cutterstock:
KEROSENE:
200 mg/m3 ACGIH TWA (restricted to conditions with negligible aerosol exposure) (cutaneous absorption danger)

DIESEL FUEL:
100 mg/m3 ACGIH TWA (vapor and aerosol) (skin)

HYDROGEN SULFIDE:
20 ppm OSHA ceiling
50 ppm OSHA peak 10 minute(s) (once if no other measurable exposure occurs)
10 ppm (14 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)

15 ppm (21 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)
10 ppm ACGIH TWA
15 ppm ACGIH STEL

MINERAL OIL MIST:
5 mg/m3 OSHA TWA
5 mg/m3 ACGIH TWA (sampled by method that does not collect vapor)
10 mg/m3 ACGIH STEL

DIPHENYL:
0.2 ppm (1 mg/m3) OSHA TWA
0.2 ppm ACGIH TWA

1,2,4-TRIMETHYLBENZENE (PSEUDOCUMENE):
25 ppm (125 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)
25 ppm ACGIH TWA (mixed isomers)

VENTILATION: General or local exhaust ventilation and other forms of engineering controls are the preferred means for controlling exposures. If ventilation cannot reduce airborne concentrations below acceptable limits, appropriate respiratory protection should be used.

EYE PROTECTION: Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits. Appropriate respirator selection should be made by a qualified professional as part of a comprehensive respiratory protection program as described in 29 CFR 1910.134. Protection provided by air-purifying respirators is limited and should not be used in atmospheres deficient in oxygen or where airborne concentrations are immediately dangerous to life or health. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid
APPEARANCE: clear
COLOR: colorless to pale yellow, green
ODOR: hydrocarbon odor
BOILING POINT: >300 F (>149 C)
FREEZING POINT: Not available
VAPOR PRESSURE: Not available
VAPOR DENSITY: Not available
SPECIFIC GRAVITY (water=1): 0.77-1 @ 16 C
WATER SOLUBILITY: insoluble
PH: Not available
VOLATILITY: Not available
ODOR THRESHOLD: Not available
EVAPORATION RATE: very slow

VISCOSITY: 1-100 SUS @ 50 C
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

10. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.

INCOMPATIBILITIES: oxidizing materials, halogens, halogenated compounds, reducing agents

HAZARDOUS DECOMPOSITION:
Thermal decomposition or combustion products: oxides of carbon, oxides of nitrogen, oxides of sulfur, hydrocarbons, hydrogen sulfide

POLYMERIZATION: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

KEROSENE:
IRRITATION DATA: 500 mg skin-rabbit severe; 100 percent/24 hour(s) skin-rabbit moderate
TOXICITY DATA: 15 gm/kg oral-rat LD50
CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Group 3, Animal Limited Evidence (Straight-run kerosene); ACGIH: A3 -Animal Carcinogen
LOCAL EFFECTS:
Irritant: inhalation, skin
ACUTE TOXICITY LEVEL:
Slightly Toxic: ingestion
TARGET ORGANS: central nervous system
MUTAGENIC DATA: Available.
ADDITIONAL DATA: Stimulants such as epinephrine may induce ventricular fibrillation.

DIESEL FUEL NO. 1:
IRRITATION DATA: 500 ul/24 hour(s) skin-rabbit severe; 80 gm/10 day(s) skin-rabbit severe; 100 percent/24 hour(s) skin-rabbit severe
TOXICITY DATA: >5 ml/kg skin-rabbit LD50; 7500 mg/kg oral-rat LD50
CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Limited Evidence, Group 3; ACGIH: A3 -Animal Carcinogen
LOCAL EFFECTS:
Irritant: inhalation, skin
ACUTE TOXICITY LEVEL:
Slightly Toxic: ingestion
TARGET ORGANS: central nervous system

LIGHT CATALYTIC CRACKED DISTILLATE:
IRRITATION DATA: 500 mg skin-rabbit severe
TOXICITY DATA: 3400 mg/m3/4 hour(s) inhalation-rat LC50; >2 gm/kg skin-rabbit LD50; >3.2 gm/kg oral-rat LD50
CARCINOGEN STATUS: IARC: Animal Sufficient Evidence (Light catalytically cracked distillates)
LOCAL EFFECTS:
Irritant: skin

ACUTE TOXICITY LEVEL:
Toxic: inhalation
Moderately Toxic: ingestion
TARGET ORGANS: central nervous system
REPRODUCTIVE EFFECTS DATA: Available.

INTERMEDIATE CATALYTIC CRACKED DISTILLATE:
LOCAL EFFECTS:
Irritant: skin, eye

HEAVY CATALYTIC CRACKED DISTILLATE:
CARCINOGEN STATUS: IARC: Animal Sufficient Evidence, Group 2A (Occupational exposure in petroleum refining)
LOCAL EFFECTS:
Irritant: skin, eye
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders, skin disorders

FUEL OIL NO. 4:
CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Sufficient Evidence, Group 2B; ACGIH: A3 -Animal Carcinogen

DIESEL FUEL NO. 2:
TOXICITY DATA: >5 ml/kg skin-rabbit LD50; 7.5 gm/kg oral-rat LD50
CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Group 3 (Light distillate diesel fuels); ACGIH: A3 -Animal Carcinogen
LOCAL EFFECTS:
Irritant: inhalation, skin
ACUTE TOXICITY LEVEL:
Slightly Toxic: ingestion
TARGET ORGANS: central nervous system
TUMORIGENIC DATA: Available.

SULFUR:
IRRITATION DATA: 8 ppm eyes-human
TOXICITY DATA: 1660 mg/m3 inhalation-mammal LC50
LOCAL EFFECTS:
Irritant: inhalation, skin, eye
ACUTE TOXICITY LEVEL:
Highly Toxic: inhalation

HYDROGEN SULFIDE:
IRRITATION DATA: 0.000125 ppm/5 hour(s) eyes-human
TOXICITY DATA: 444 ppm inhalation-rat LC50
LOCAL EFFECTS:
Irritant: inhalation, skin, eye
ACUTE TOXICITY LEVEL:
Toxic: inhalation
TARGET ORGANS: blood
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: eye disorders, respiratory disorders, nervous system disorders
REPRODUCTIVE EFFECTS DATA: Available.
ADDITIONAL DATA: Alcohol may enhance the toxic effects.

NAPHTHALENE:
IRRITATION DATA: 495 mg open skin-rabbit mild; 100 mg eyes-rabbit mild; 0.05 ml/24 hour(s) skin-rabbit severe
TOXICITY DATA: >340 mg/m3/1 hour(s) inhalation-rat LC50; >20 gm/kg skin-rabbit LD50; 490 mg/kg oral-rat LD50
CARCINOGEN STATUS: NTP: Anticipated Human Carcinogen; IARC: Human Inadequate Evidence, Animal Sufficient Evidence, Group 2B; ACGIH: A4 -Not Classifiable as a Human Carcinogen
LOCAL EFFECTS:
Irritant: inhalation, skin, eye
ACUTE TOXICITY LEVEL:
Toxic: ingestion
TARGET ORGANS: blood
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: metabolic disorders
TUMORIGENIC DATA: Available.
MUTAGENIC DATA: Available.
REPRODUCTIVE EFFECTS DATA: Available.
ADDITIONAL DATA: May cross the placenta.

12. ECOLOGICAL INFORMATION

Not available

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:
PROPER SHIPPING NAME: Petroleum distillates, n.o.s.
ID NUMBER: UN1268
HAZARD CLASS OR DIVISION: 3
PACKING GROUP: III
LABELING REQUIREMENTS: 3
DOT HAZARDOUS SUBSTANCE(S):
Xylene 100 lb(s) (45.4 kg(s))
Naphthalene 100 lb(s) (45.4 kg(s))
Benzene 10 lb(s) (4.54 kg(s))

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.

15. REGULATORY INFORMATION

U.S. REGULATIONS:
CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): A release of this product, as supplied, is exempt from reporting under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) by the petroleum exclusion. Releases may be reportable to the National Response Center (800-424-8802) under the Clean Water Act, 33 U.S.C. 1321(b)(3) and (5). This product contains one or more components designated as hazardous substances or toxic pollutants pursuant to the Federal Clean Water

(40 CFR 116.4 Table A; 40 CFR 401.15).

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):
HYDROGEN SULFIDE: 500 LBS TPQ

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):
HYDROGEN SULFIDE: 100 LBS RQ

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: Yes
CHRONIC: Yes
FIRE: Yes
REACTIVE: No
SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65):
HYDROGEN SULFIDE: Administrative stay issued Aug. 22, 1994
NAPHTHALENE

OSHA PROCESS SAFETY (29CFR1910.119):
HYDROGEN SULFIDE: 1500 LBS TQ

CLEAN AIR ACT: This product contains one or more components listed as a hazardous air pollutant under Title III of the Clean Air Act Amendment of 1990.

STATE REGULATIONS:
California Proposition 65:
Known to the state of California to cause the following:
Soots, tars, and mineral oils (untreated and mildly treated oils and used engine oils)
Cancer (Feb 27, 1987)
NAPHTHALENE
Cancer (Apr 19, 2002)

NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW: This MSDS was prepared in accordance with the New Jersey Worker and Community Right-to-Know Act.

PENNSYLVANIA RIGHT TO KNOW: This MSDS was prepared in accordance with the Pennsylvania Worker and Community Right-to-Know Act.

CANADIAN REGULATIONS:
WHMIS CLASSIFICATION: Not determined.

NATIONAL INVENTORY STATUS:
U.S. INVENTORY (TSCA): All the components of this substance are listed on or are exempt from the inventory.

TSCA 12(b) EXPORT NOTIFICATION:
NAPHTHALENE
CAS NUMBER: 91-20-3
SECTION 4

CANADA INVENTORY (DSL/NDSL): Not determined.

16. OTHER INFORMATION

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